

# Brain disorder phenomenology using noninvasive brain analysis

■ Develop and evaluate superconducting (SQUID base) instrumentation

■ Develop from actual MEG data a patient specific computational electromagnetic brain model

■ Diverse technologies including:

- Superconductivity
- Cryogenics
- Thin-film device electronics
- Advanced signal analysis & image processing
- Computational electromagnetics
- Neuroscience

■ Military spinoff applications

- High sensitivity magnetic anomaly sensors
- Advanced man-machine interface
- Lie detection phenomenology
- Audio and visual perception/recognition processes